
CANCER FACTS

National Cancer Institute • National Institutes of Health

Questions and Answers About Cancer

1. What is cancer?

Cancer is a group of many different diseases that have some important things in common. Cancer affects our cells, the body's basic unit of life.

To understand cancer, it is helpful to know what happens when normal cells become cancerous. The body is made up of many types of cells. Normally, cells grow, divide, and produce more cells as they are needed to keep the body healthy. Sometimes, however, the process goes astray—cells keep dividing when new cells are not needed. The mass of extra cells forms a growth or tumor. Tumors can be benign or malignant.

Benign tumors are not cancer. They often can be removed and, in most cases, they do not come back. Cells in benign tumors do not spread to other parts of the body. Most important, benign tumors are rarely a threat to life.

Malignant tumors are cancer. Cells in malignant tumors are abnormal and divide without control or order. These cancer cells can invade and destroy the tissue around them. Cancer cells can also break away from a malignant tumor and enter the bloodstream or lymphatic system (these two networks of vessels carry blood and lymph throughout the body). The process by which cancer spreads from the original tumor to form new tumors in other parts of the body is called metastasis.

2. What are some of the common signs and symptoms of cancer?

Cancer can cause a variety of symptoms. These are some of them:

- Thickening or lump in the breast or any other part of the body
- Obvious change in a wart or mole
- A sore that does not heal
- Nagging cough or hoarseness
- Changes in bowel or bladder habits
- Indigestion or difficulty swallowing
- Unexplained changes in weight
- Unusual bleeding or discharge

When these or other symptoms occur, they are NOT always caused by cancer. They may also be caused by infections, benign tumors, or other problems. It is important to see the doctor about any of these symptoms or about other physical changes. Only a doctor can make a diagnosis. One should **not** wait to feel pain: Early cancer usually does not cause pain.

If symptoms occur, the doctor may order various tests and/or a biopsy. A biopsy is the most reliable way to know whether a medical problem is cancer. During a biopsy, the doctor removes a sample of tissue from the abnormal area. The tissue is then examined under a microscope to check for cancer cells.

3. How is cancer treated?

Cancer may be treated with surgery, radiation therapy, chemotherapy, hormone therapy, or biological therapy. The doctor may use one method or a combination of methods. The choice of treatment depends on the type and location of the cancer, whether the disease has spread, the patient's age and general health, and other factors.

An important option for people with cancer is to take part in clinical trials (research studies). Doctors conduct clinical trials to learn about the effectiveness and side effects of new treatments. Through research, doctors learn new ways to treat cancer that may be more effective than the standard therapy. In some studies, all patients receive the new treatment. In others, doctors compare different therapies by giving the new treatment to one group of patients and the standard therapy to another group. Research like this has led to significant advances in the treatment of cancer. People who take part in these studies have the first chance to benefit from treatments that have shown promise. They also make an important contribution to medical science.

4. Can cancer be prevented?

Cancer develops gradually as a result of a complex mix of factors related to environment, lifestyle, and heredity. Scientists have identified many factors that increase the chance of getting cancer. Some people are more sensitive than others to factors that can cause cancer.

Many cases of cancer can be prevented by not using tobacco products, avoiding the harmful rays of the sun, and choosing foods with less fat and more fiber. In addition, alcohol and exposure to certain chemicals and/or radiation may increase a person's risk of developing cancer.

Although many risk factors can be avoided, others, such as inherited factors, are unavoidable. Still, it is helpful to be aware of them. It is also important to keep in mind that not everyone with a particular risk factor for cancer actually gets the disease; in fact, most do not. People who have an increased likelihood of developing cancer can help protect themselves by avoiding risk factors whenever possible and by getting regular checkups so that, if cancer develops, it is likely to be found early. Treatment is likely to be more effective when cancer is detected early.

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Sources of National Cancer Institute Information

Cancer Information Service

Toll-free: 1-800-4-CANCER (1-800-422-6237)

TTY (for deaf and hard of hearing callers): 1-800-332-8615

NCI Online

Internet

Use <http://www.cancer.gov> to reach NCI's Web site.

CancerMail Service

To obtain a contents list, send e-mail to cancermail@icicc.nci.nih.gov with the word "help" in the body of the message.

CancerFax® fax on demand service

Dial 301-402-5874 and listen to recorded instructions.

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